

WHAT IS CLAIMED IS:

1. An objective lens for focusing a light beam emitted from a light source on an information recording surface of an optical information recording medium,
 - 5 wherein the objective lens has a substantially truncated-cone-shaped portion on its surface on a side of the optical information recording medium.
- 10 2. The objective lens according to claim 1, wherein the light beam passes through the substantially truncated-cone-shaped portion, and an upper surface of the substantially truncated-cone-shaped portion has a diameter larger than an effective diameter of the light beam passing through the upper surface.
- 15 3. The objective lens according to claim 1, wherein a base of the substantially truncated-cone-shaped portion of the objective lens has a radius $RL2$ smaller than 1.8 mm, and a height H of the substantially truncated-cone-shaped portion satisfies
 - 20 height $H > 0.75 \text{ mm} + \text{necessary movement amount FD of lens} - \text{working distance WD.}$
4. An optical head comprising:
 - 25 a light source;
 - an objective lens for focusing a light beam emitted from the light source on an information recording surface of an optical information recording medium;
 - 30 a plurality of optical elements; and
 - an optical-electric conversion system;
- 35 5. An optical information recording/ reproducing apparatus, which comprises an optical head for recording or reproducing information optically with respect to an optical information recording medium and records or reproduces desired information with respect to the optical information recording medium,
 - wherein the optical head is the optical head according to claim 4.